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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/673,140 | 09/30/2003 | Christopher Evans | 19111.0126 | 3825 |

68009          7590          06/27/2007
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| EXAMINER |
|---|
| MAHMOOD, REZWANUL |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2164 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 06/27/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

<table>
<tr><td rowspan="3"></td><td colspan="2">Application No.</td><td colspan="2">Applicant(s)</td></tr>
<tr><td colspan="2">10/673,140</td><td colspan="2">EVANS ET AL.</td></tr>
<tr><td>Examiner</td><td></td><td>Art Unit</td><td></td></tr>
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| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 10/673,140 | EVANS ET AL. |
| | **Examiner** | **Art Unit** |
| | Rezwanul Mahmood | 2164 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>21 May 2007</u>.

2a)☐ This action is **FINAL**.     2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1-9</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-9</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

## DETAILED ACTION

1.      A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection.  Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114.  Applicant's submission filed on

05/21/2007 has been entered.

### *Claim Rejections - 35 USC § 102*

2.      The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

3.      Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Levine

(US Patent 6,640,221).

4.      With respect to claim 1, Levine discloses a computer-implemented method of

preventing execution of unnecessary joins between tables in a database, the method

comprising the steps of:

          a.      presenting a Structured Query Language (SQL) statement to the

database, the SQL statement having a scope that extends to a set of

tables in the database and returning a set of results from the database

(Levine: Abstract, lines 1-14; Column 4, lines 1-39; Column 5, lines 61-67;

Column 6, lines 1-33; Figures 1, 2, 6; Here a Structured Query Language

statement is presented to the database using a query tool, which has the

scope that extends to a set of tables in the database and returns a result);

b.     preparing a list of tables that are related to returning the set of results but

that are not directly referred to by the SQL statement (Levine: Column 4,

lines 1-39; Column 5, lines 61-67; Column 6, lines 1-33; Column 13, lines

43-67; Column 14, lines 1-9; Figures 1, 2; Here the query tool prepares a

list of tables that are related to returning the set of results but that are not

directly referred to by the SQL statement, the user selects the tables from

the list which will be referred directly by the SQL statement);

c.     removing tables that must be accessed in order to return the set of results

from the list in accordance with a predetermined set of rules (Levine:

Column 4, lines 1-39; Column 5, lines 61-67; Column 6, lines 1-33;

Column 13, lines 43-67; Column 14, lines 1-9; Figures 1, 2; Here the

tables that will be used by the SQL statement are selected from the list);

and,

d.     preventing execution of joins involving any of the tables remaining in the

list (Levine: Column 4, lines 1-39; Column 5, lines 61-67; Column 6, lines

1-33; Column 13, lines 43-67; Column 14, lines 1-9; Figures 1, 2; Since

the tables required by the SQL statement are selected from the original

list, the rest of the tables in the list do not participate in the SQL statement

and are prevented from participating in execution of joins).

5. With respect to claim 2, Levine discloses a computer-implemented method

according to claim 1, wherein the predetermined set of rules includes allowing removal

of a table from the list if this table is part of a join chain (Levine: Column 4, lines 1-39;

Column 5, lines 61-67; Column 6, lines 1-33; Column 13, lines 43-67; Column 14, lines

1-9; Figures 1, 2; Here the tables that will be used by the SQL statement are selected

from the list).

6. With respect to claim 3, Levine discloses a computer-implemented method

according to claim 1, wherein the predetermined set of rules includes a rule allowing

removal of a table from the list if this table forms the detail table in a join between a

master table and a detail table (Levine: Column 4, lines 1-39; Column 5, lines 61-67;

Column 6, lines 1-33; Column 13, lines 43-67; Column 14, lines 1-9; Figures 1, 2; Here

the tables that will be used by the SQL statement are selected from the list).

7. With respect to claim 4, Levine discloses a computer-implemented method

according to claim 1, wherein the predetermined set of rules includes a rule allowing

removal of a table from the list if detail item values might not exist in a master table

joined to a detail table (Levine: Column 4, lines 1-39; Column 5, lines 61-67; Column 6,

lines 1-33; Column 13, lines 43-67; Column 14, lines 1-9; Figures 1, 2; Here the tables

that will be used by the SQL statement are selected from the list).

8.    With respect to claim 5, Levine discloses a computer-implemented method

according to claim 1, wherein the predetermined set of rules includes a rule allowing

removal of a table from the list if that table has a mandatory filter (Levine: Column 4,

lines 1-39; Column 5, lines 61-67; Column 6, lines 1-33; Column 13, lines 43-67;

Column 14, lines 1-9; Figures 1, 2; Here the tables that will be used by the SQL

statement are selected from the list).

9.    With respect to claim 6, Levine discloses a computer-implemented method

according to claim 4, wherein the predetermined set of rules further includes a rule

preventing removal of a table from the list that would otherwise be allowed, if the join is

an outer join on a master table (Levine: Column 4, lines 1-39; Column 5, lines 61-67;

Column 6, lines 1-33; Column 13, lines 43-67; Column 14, lines 1-9; Figures 1, 2; Here

the tables that will be used by the SQL statement are selected from the list).

10.    With respect to claim 7, Levine discloses a computer-implemented method

according to claim 5, wherein the predetermined set of rules further includes a rule

preventing removal of a table from the list that would otherwise be allowed, if the join is

an outer join on a master table (Levine: Column 4, lines 1-39; Column 5, lines 61-67;

Column 6, lines 1-33; Column 13, lines 43-67; Column 14, lines 1-9; Figures 1, 2; Here

the tables that will be used by the SQL statement are selected from the list).

11.     With respect to claim 8, Levine discloses a computer program comprising computer program code means adapted to perform the steps of claim 1 when said program is run on a computer (Levine: Column 5, lines 25-30).

12.     With respect to claim 9, Levine discloses a computer program product comprising program code means stored on a computer readable medium for performing the method of claim 1 when said program product is run on a computer (Levine: Column 5, lines 25-36).

### *Remarks*

13.     Applicant's arguments filed 5/21/2007 have been fully considered but they are not persuasive. Applicant argues that Levine does not teach or suggest "tables that are within the scope of an SQL statement but not directly referred to by it". The Examiner responds that the prior art does teach the feature. Levine teaches in Column 4 lines 1-39, Column 5 lines 61-67, Column 6 lines 1-33, Column 13 lines 43-67, Column 14 lines 1-9 and Figures 1, 2, 6 presenting a SQL statement using a query tool which prepares a list of tables in the database, which are related to returning the set of results by the SQL statement but not directly referred by the statement. After the list is prepared and presented, the tables required by the statement can be selected and directly referred to.

## *Conclusion*

14.    The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. The Gutierrez-Rivas reference (US Patent 6,553,371) teaches

about selecting table joins. The Kumar reference (US Publication 2003/0088548)

teaches about extracting data from a database using a reduced query.

### *Contact Information*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rezwanul Mahmood whose telephone number is (571)272-5625. The examiner can normally be reached on M - F  10 A.M. - 5 P.M..
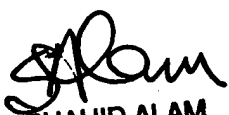
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571)272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Rezwanul  Mahmood
Examiner
Art Unit 2164

June 22, 2007

SHAHID ALAM
PRIMARY EXAMINER